

RICE UNIVERSITY

Duck, Duck, Goose

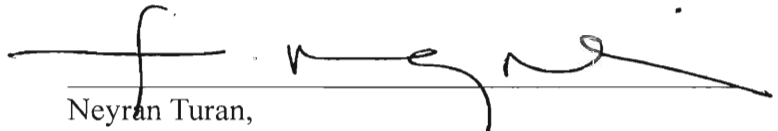
by

Annika Miller

A THESIS SUBMITTED
IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE

Master of Architecture

APPROVED, THESIS COMMITTEE:



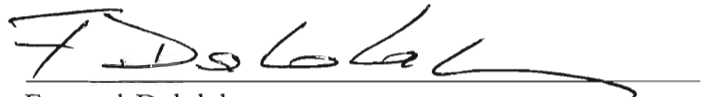
Neyran Turan,

Assistant Professor of Architecture



Albert Pose,

Gus Sessions Wortham Professor of Architecture



Fares el-Dahdah,

Associate Professor of Architecture

HOUSTON, TEXAS

May, 2011

ABSTRACT

duck, duck, GOOSE

by

Annika Miller

This thesis reinvents the current homogenized horizontality along the American highways by inserting a new typology of verticality along the existing horizontal sprawl. The project focuses upon the ever-growing commercialization and urban sprawl along a 181-mile strip of I.H.10, which runs from Jennings, Louisiana to Houston, Texas. In this landscape the sign has become the most dominant feature, while architecture has become simply an empty shell. There is no focal point along the highway today, only the aspiration of the sign to be higher than any inhabitable structure around it.

This project proposes the insertion of 6 vertical elements into this horizontal landscape by taking the existing program and signs directly adjacent to the highway and relocating them into specified locations along I.H.10. These new densified nodes will further be defined through differentiated scales of perception through architecture and design.

I want to offer my blessings to all of those who supported me during the completion of this Thesis. You know who you are.

Annika Miller

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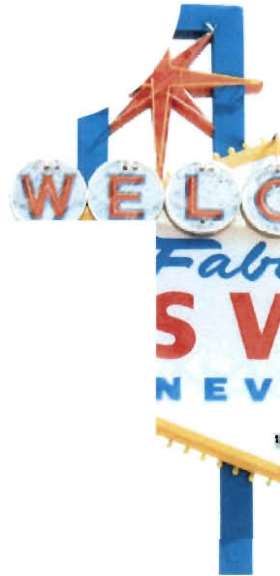
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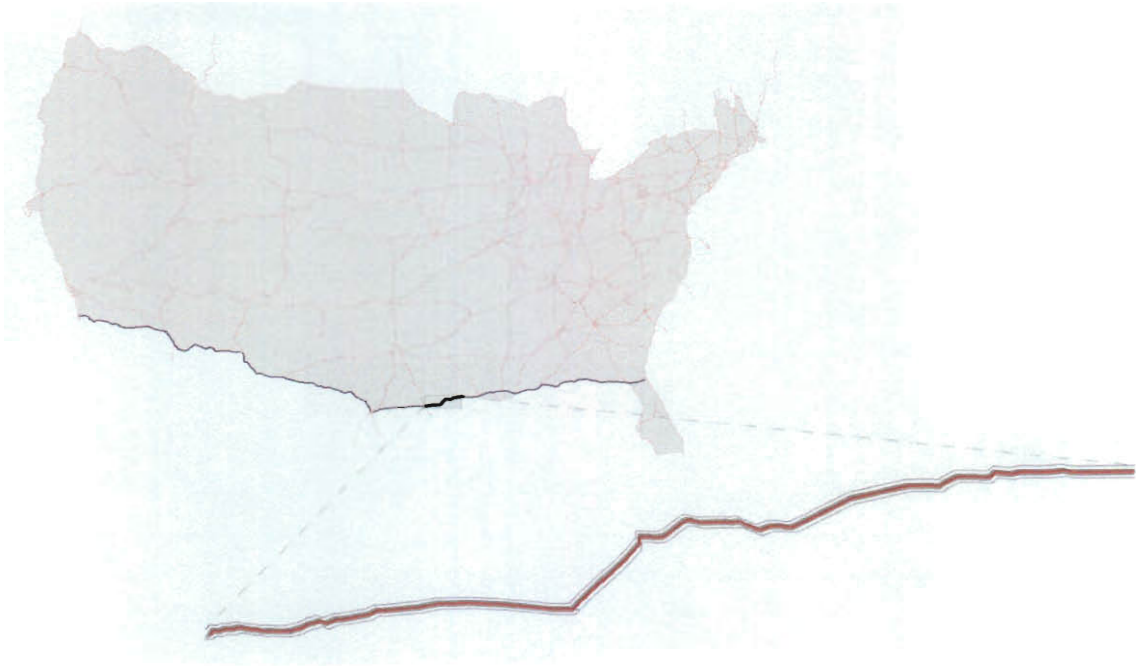
LAS VEGAS :: the beginning



This story began in the 70s with one Las Vegas, yet today we face a new reality: our everyday environments have ALL become Las Vegas. We have shifted scales from local environments into Global Frameworks. Today we live in a condition of point-based urbanism, where the in between situations are lost in nothingness- a sea of icons and adrift information.



AREA OF INVESTIGATION :: Jennings, LA to Houston, TX



This thesis began with the evaluation of the signage, and the commercialization along a 181-mile strip of I-10, that runs from Jennings Louisiana, to Houston Texas, concentrating most heavily upon the ideas of the ever-expanding urban sprawl, initiated by the highways.

CHANGING PERCEPTIONS :: From vertical to horizontal

Looking back in history, the coming of the highways brought with it a changing perception of the environment. The use of speed changed our society as well as economy but most importantly influenced where and HOW we built our towns and cities.

I.H.10, vidor, 1964



I.H.10, vidor, 2010



This ever growing urban sprawl has led to Agoraphilia, the love of horizontal spaces, which is seen throughout our everyday landscapes in the rural America, only being reinforced by the endless horizon of the highway.

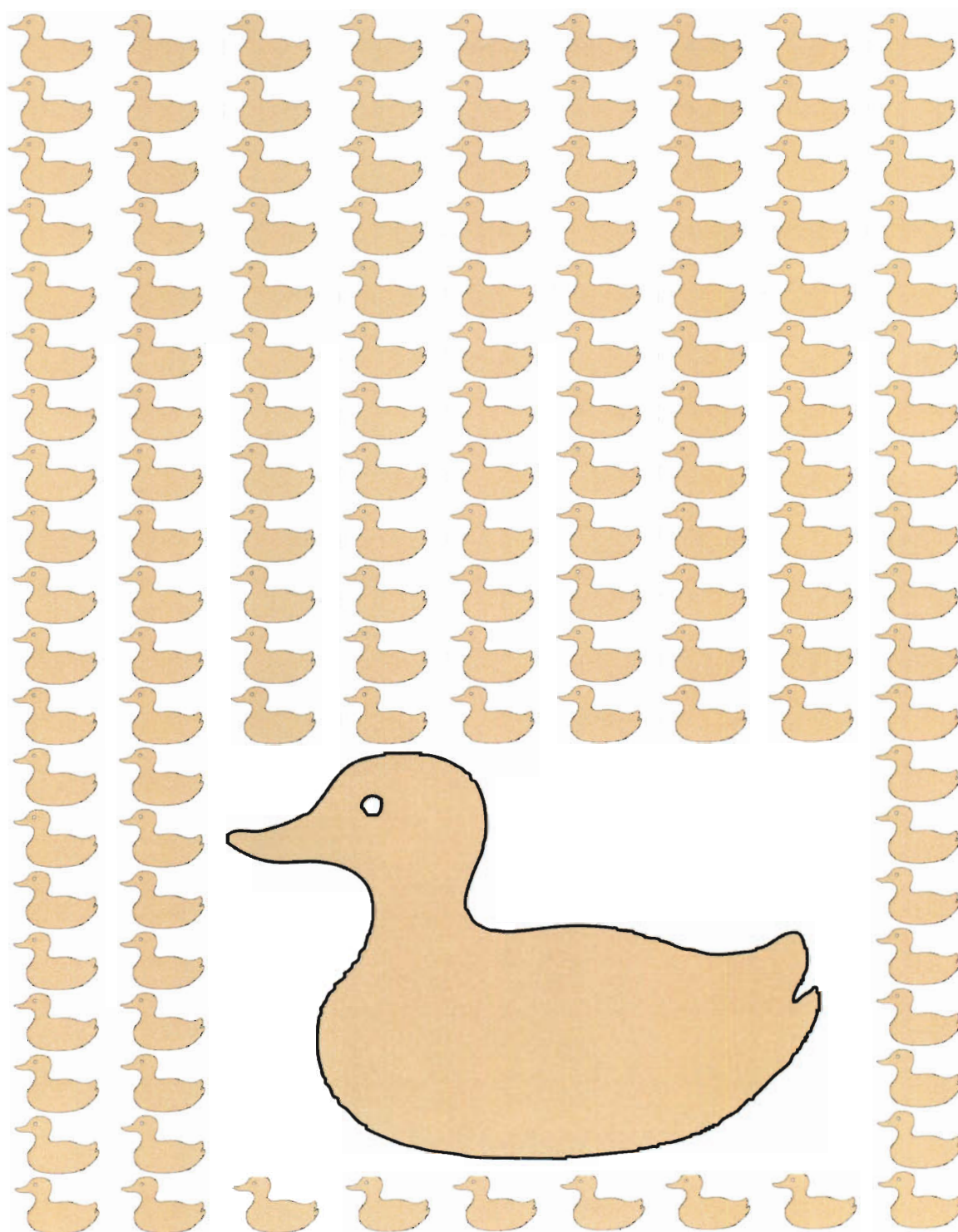




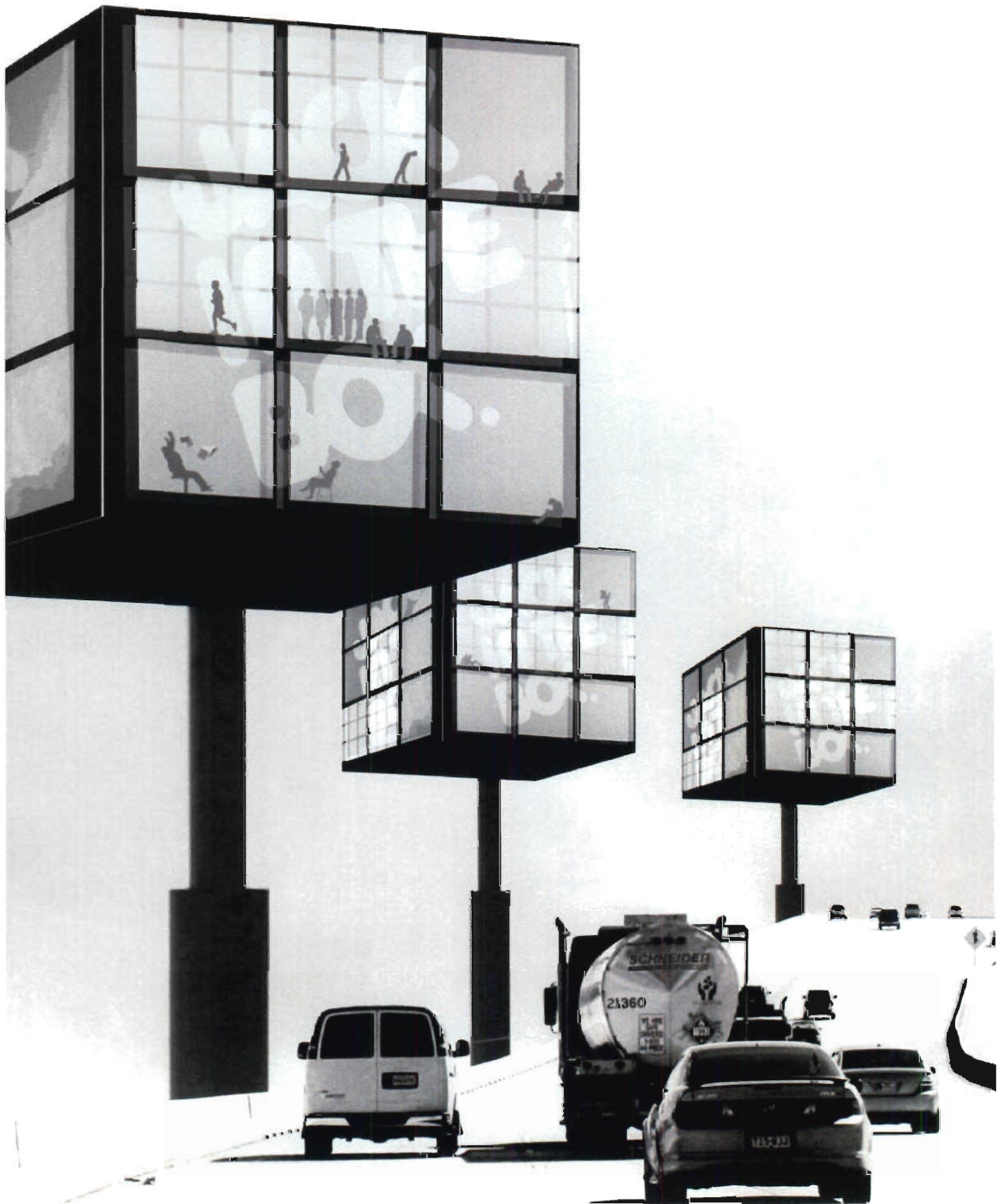
Looking back in history, the coming of the highways brought with it this change in our awareness of the built environment. These roads reoriented our reading of space and form from vertical to horizontal, and the main thing we notice along the highways today is the aspirations of the sign to be higher than any inhabitable structure around it. As we travel along, we see nothing but the sign, and occasionally something reminiscent of architectural forms.



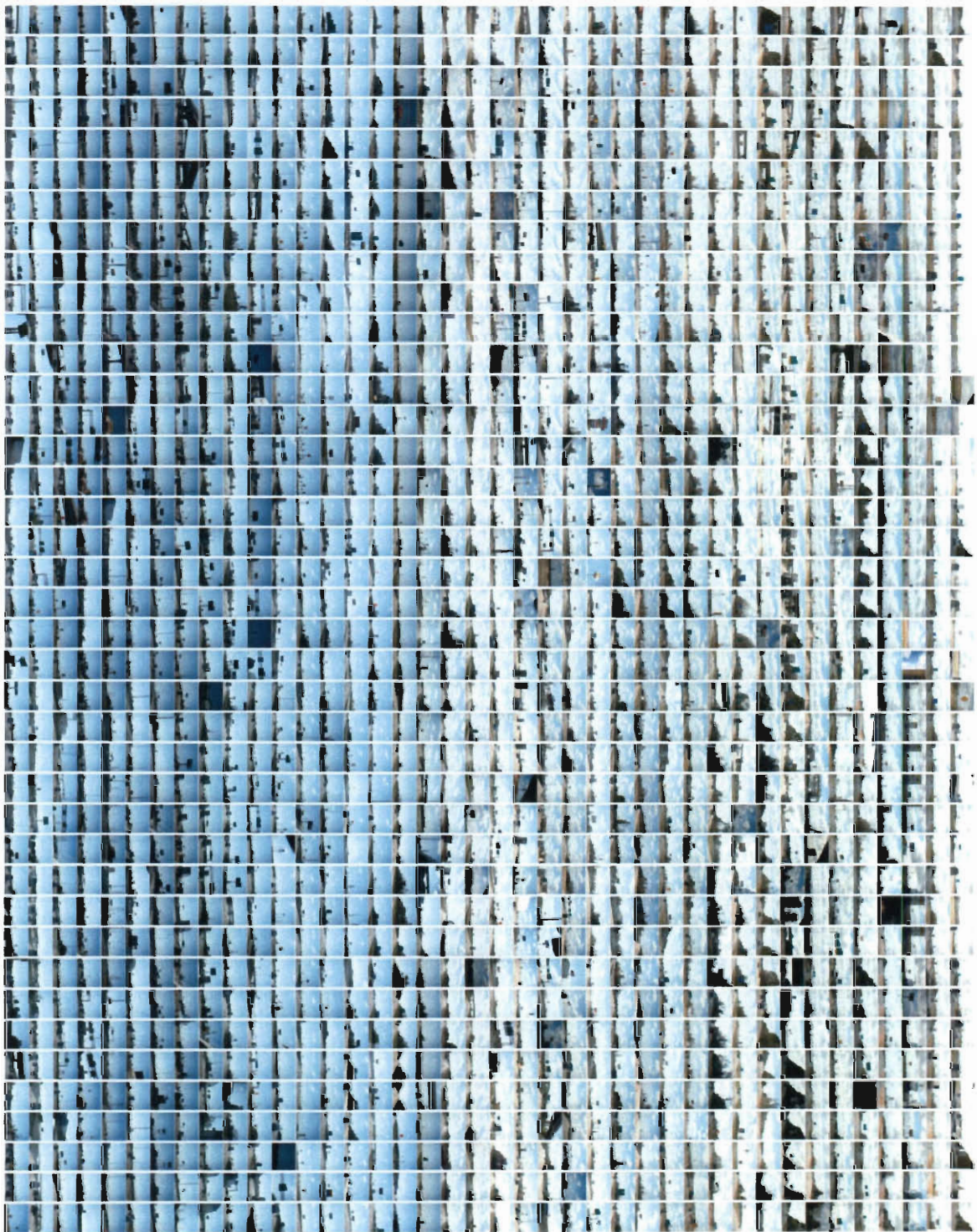
Architecture has simply become an empty shell along our highways.



With this Imposter, I began to question as well as project what the new typology of building could be in order for it to become more visible and informative than the current architecture and its signage. Is it simply this? a bigger box on a stick? The answer in this case is No.



The sign has definitely become the most dominant feature. Here we see an image of each , over 2000 signs, along the highway from Jennings Louisiana, at the top right corner, all the way to Houston Texas, at the bottom left of the page.



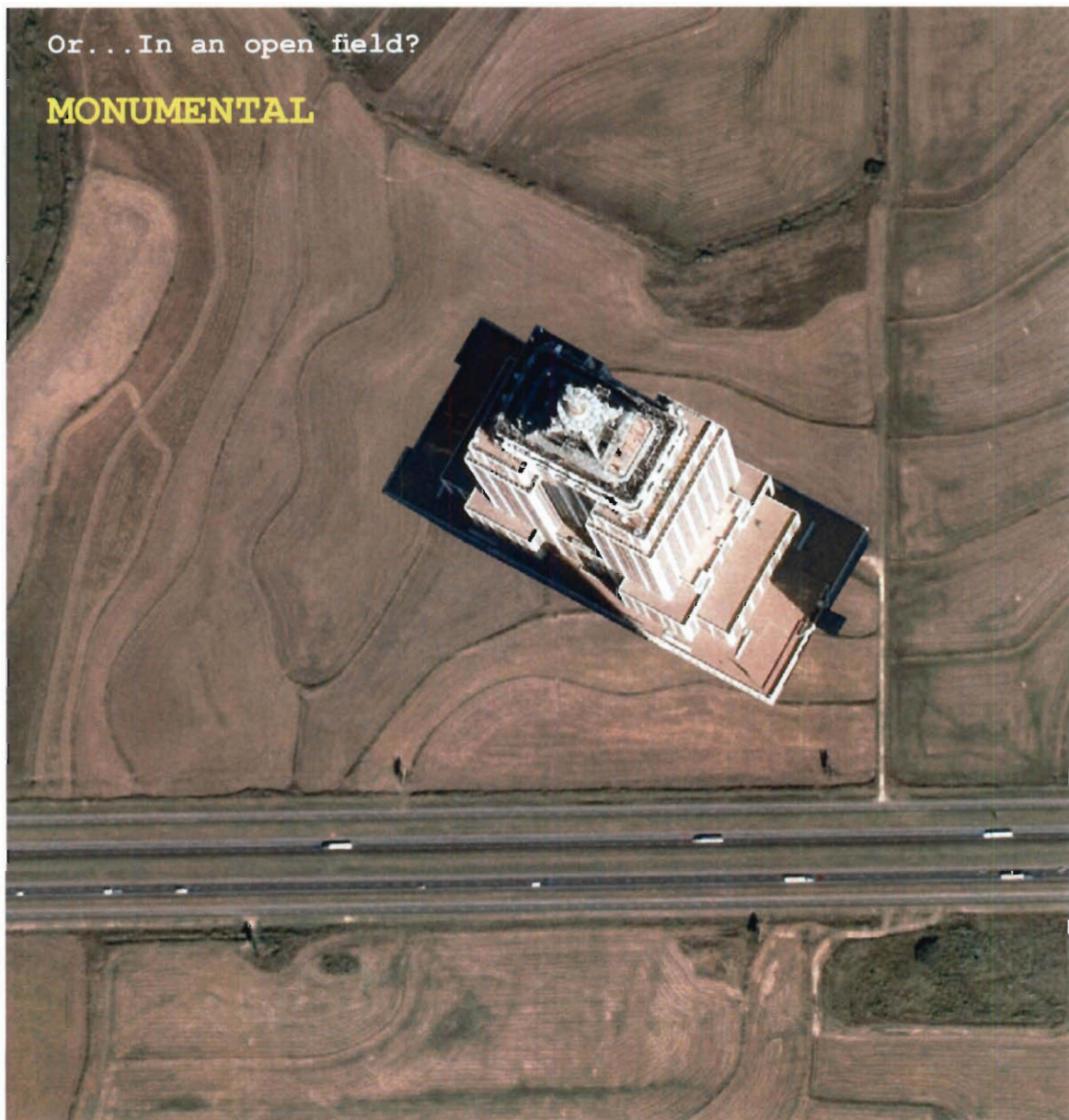
CHANGING PERCEPTIONS :: From Monuments to Monumental

monument vs. monumental ::

Inherently when we are in a horizontal condition we have a different understanding of scale as well as form than when we compare the same scale in the context of Manhattan.

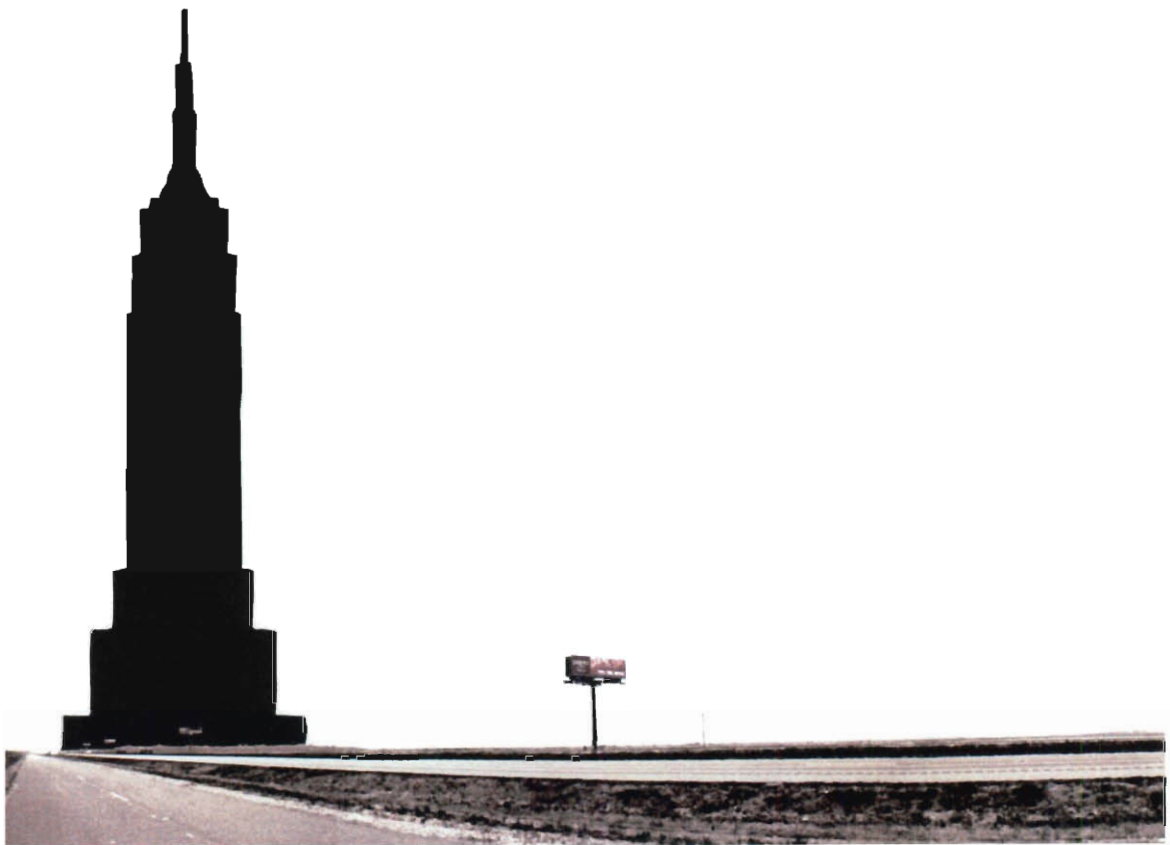


Verticality becomes a monument in the context of the city, but creates the effect of monumentality along the horizontal field condition.

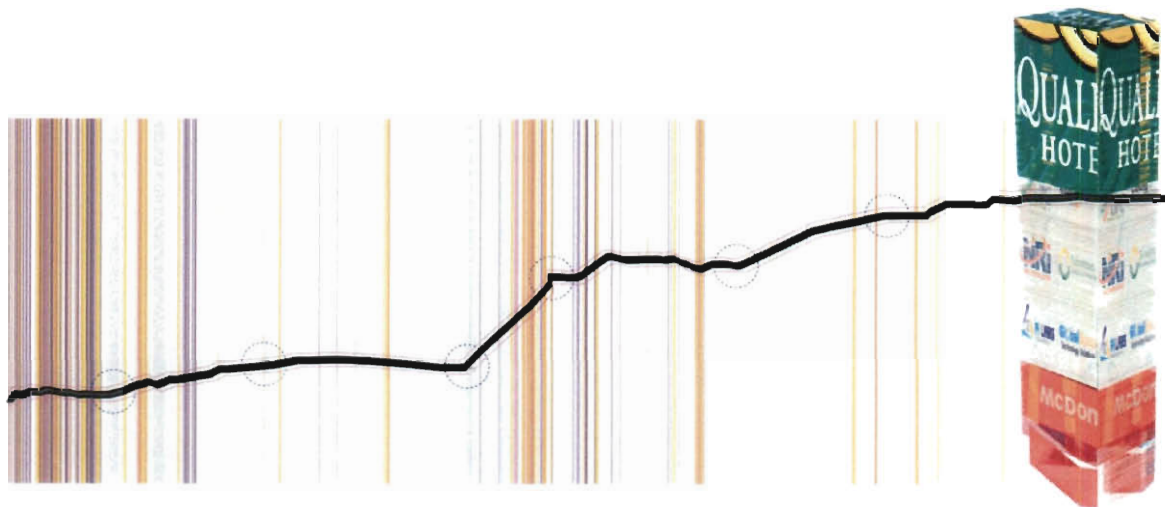


DENSITY :: From horizontal to vertical

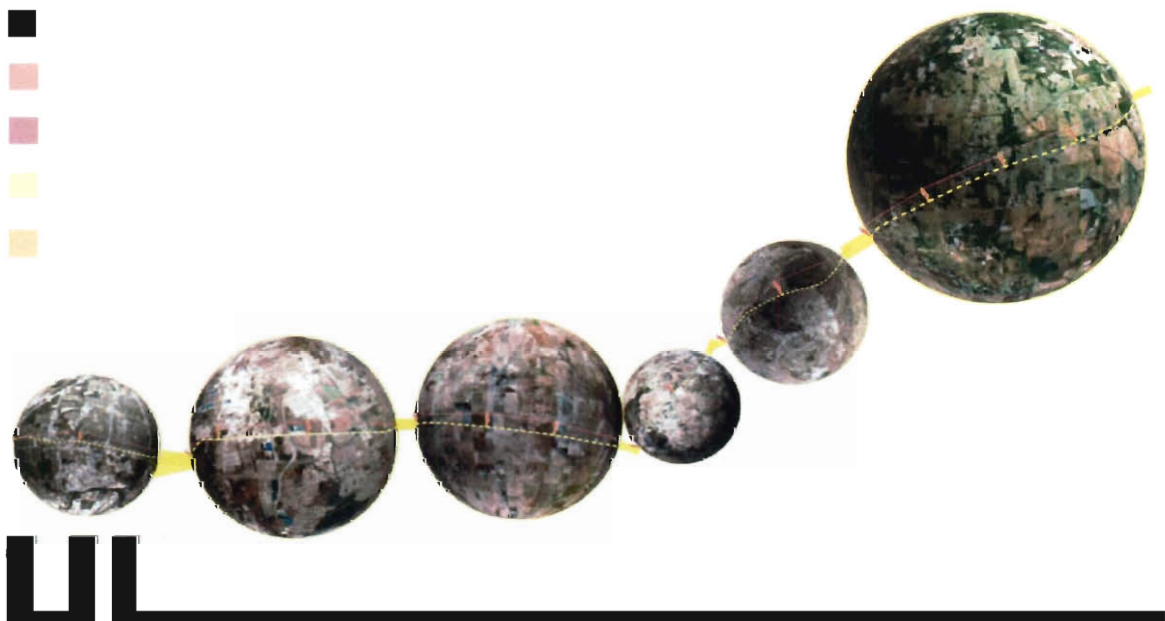
The scale requires a new definition when the vertical element is relocated into this empty horizontal field condition. This new typology of monumentality is important not only in terms of its reception from the road but its potentials to create new social conditions within. In order to define this new typology further, we are forced to ask the question. WHAT ABOUT DENSITY? And thus we begin to look at *how the existing horizontal can become the new vertical*.



By placing all the existing programs from Houston to Jennings in one location we can begin to understand the current densities of program along the highway. This would create approximately 93-story high-rise.

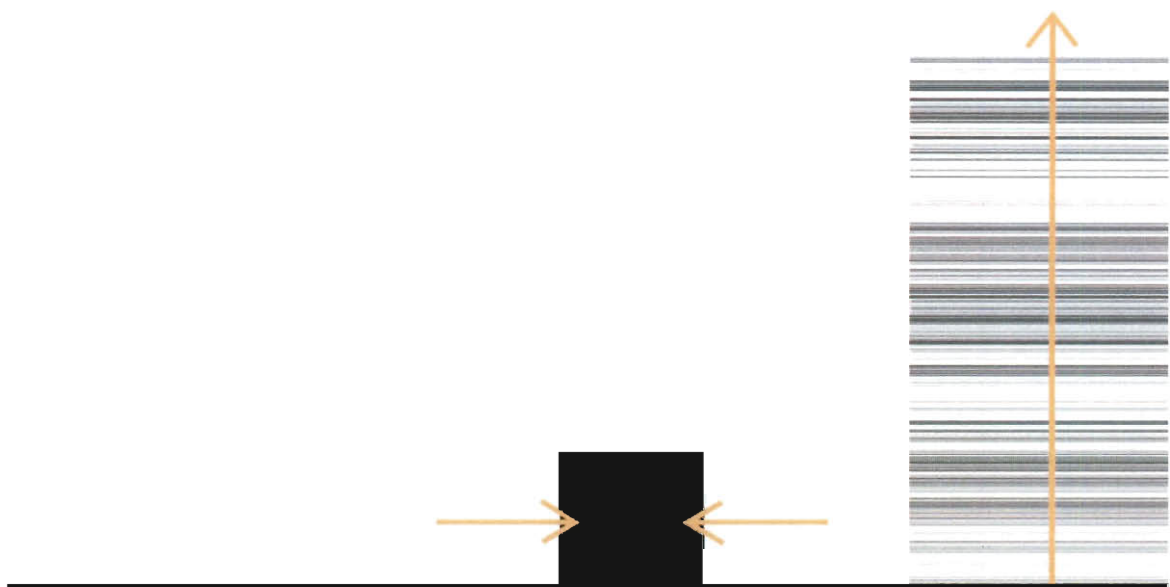


The idea of this new vertical density brings with it the aspect of visibility. Thus it is important to note that human eye can see 10 miles along a horizontal surface before the curvature of the earth takes over while in a denser context [Manhattan] this visibility is obscured by the person's proximity to the surrounding objects.

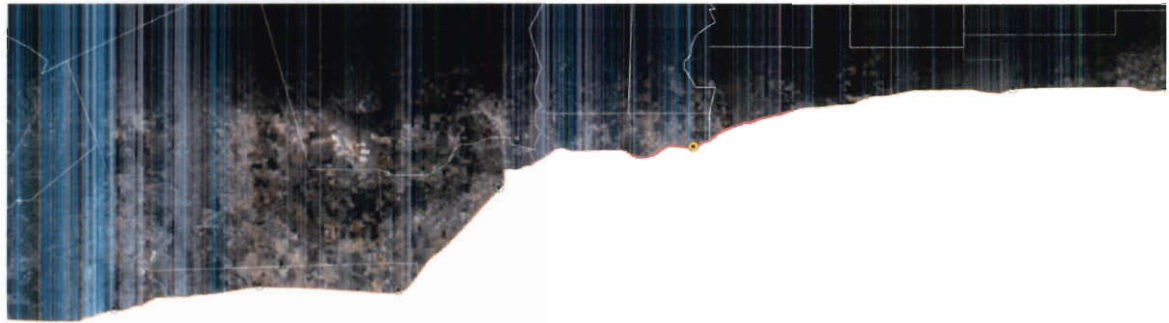


By using this operation of densification, we first compact the existing rhythms of program into densified nodes, and then further stretch this programmatic information in the vertical dimension rather than the previous horizontal.

The ambition of this thesis is not to replicate the existing horizontal experience of the highway but rather reinvent it, allowing the densities of programs be visible from afar while also differentiating the final form of each vertical node.



TERRITORIAL Re-DISTRIBUTION :: Creating Broader Spatial Organization



above ::

identifying the amounts and densities of existing programs and signage

We can then begin to look at the territory of the highway as a whole and begin to determine how the existing densities of program will be redistributed along the way in order to establish a territorial repetition of objects through new visual clarity.

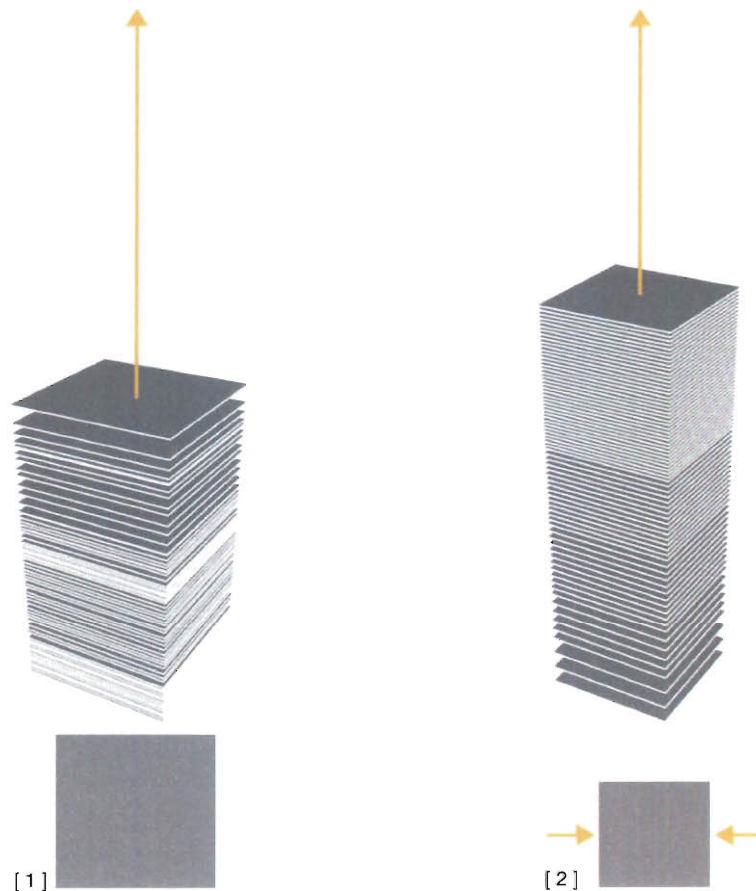
There will be 6 separate locations, one in each county. Each created by taking the programs directly adjacent to the highway, and relocated to these 6 locations. This system will allow a broader spatial orientation for the traveler, while also allowing times at which no structure will be visible, emphasizing the newly defined "graphically quiet" areas in between these structures.

VERTICAL HIERARCHY :: Maximum Visibility Through Desired Density

As it is right now, the existing sprawl does not allow any interaction between the parts as the landscape has become totally homogenized. This new densification will create new social interaction and hierarchy between these various elements and user groups of the highway by compacting the existing rhythms of programs into densified nodes ::

[1] At these nodes the existing programmatic information is first stretched in the vertical dimension rather than the previous horizontal.

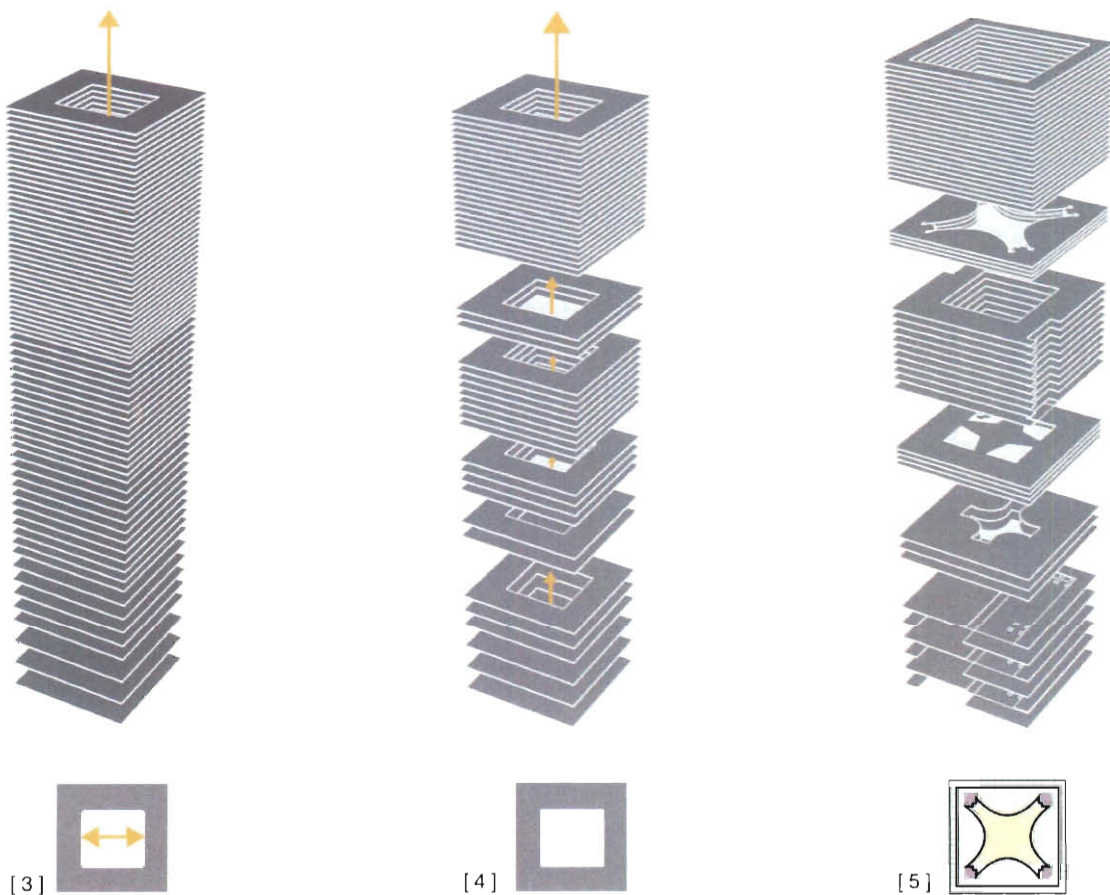
[2] This stretching of the program can be seen best within the gradient of the floors, ranging from very open at the bottom of the structure to very dense at the top. At the same time the footprint of the structure is condensed inward, allowing the stretching reach even higher.



[3] The void is inserted to allow the building to stretch to its maximum height, creating the desired visibility from further down the highway while maintaining the required density of the footprint.

[4] A public space is then created in between each programmed zone, emphasizing the differentiated parts of the building.

[5] And while this solid void relationship between the different sections creates the differentiation on the exterior of the structure, the interior is being defined through the changing plan typologies within each zone.



CREATING THE DIFFERENCE :: 4 Juxtaposed Scales of Perception

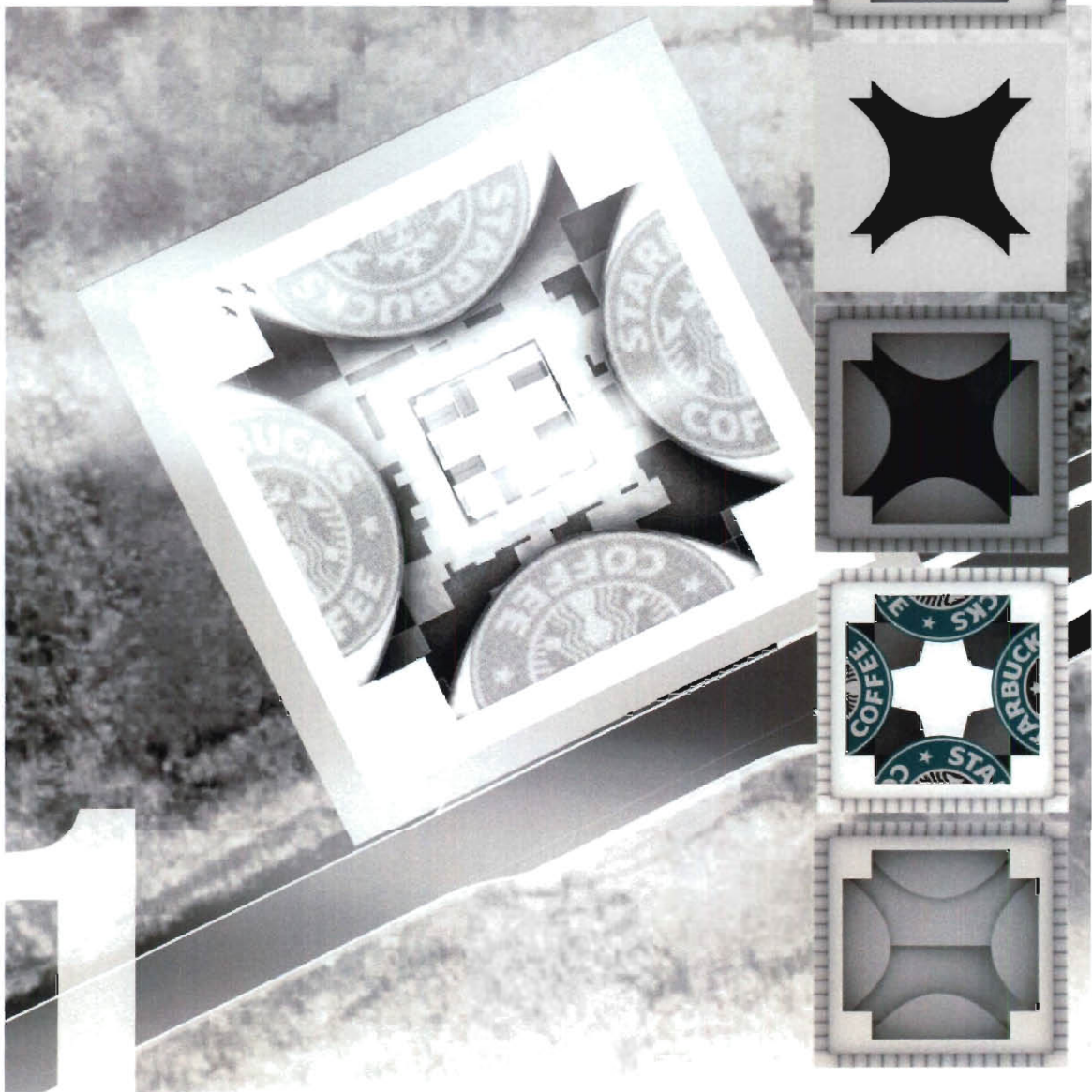


While venturi concentrated heavily mainly upon the person's perspective from inside ones vehicle, I am introducing four juxtaposed scales of perceptions of these objects for the person traveling along the highway.

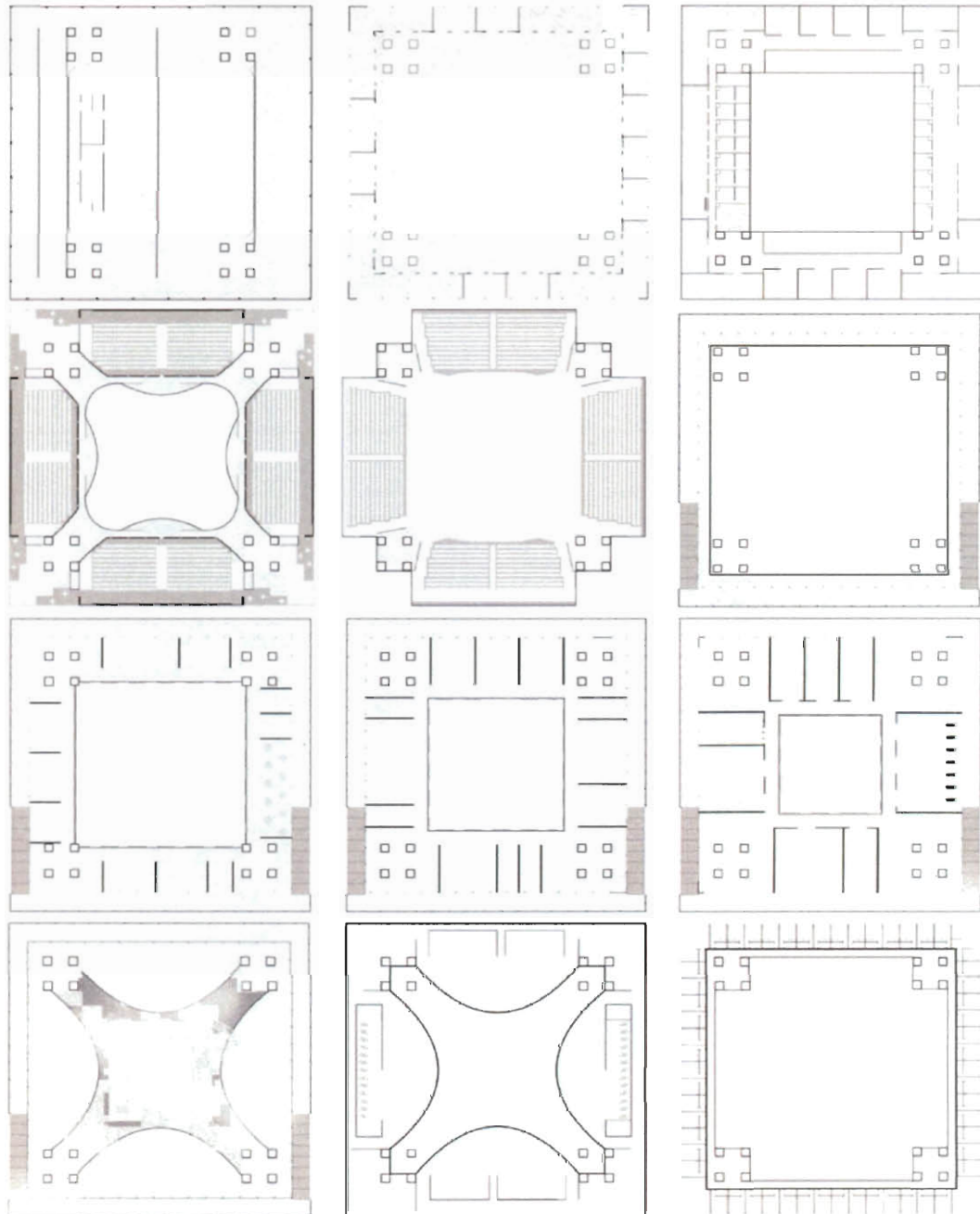
4

[1] TERRITORY

The four juxtaposed scales of perceptions of these objects begin at the territorial scale: [1] giving the traveler a sense of larger and longer spatial orientation. At this scale the structure becomes an object, an icon, within the empty field condition. These object are distinguishable from each other from above, all dependent on the amounts and densities of existing programs and signage.



The plans are responding to these existing programs, which are relocated and densified at these new locations. There is a certain ambition within their shape-ness so they are not only a consequence of what the program requires but also creating a certain legibility, iconicity, within each of them. Once the exact amount of programming is determined for each location, the combination of these plan shapes will determine the final image the object will have from above.



[2] APPROACH

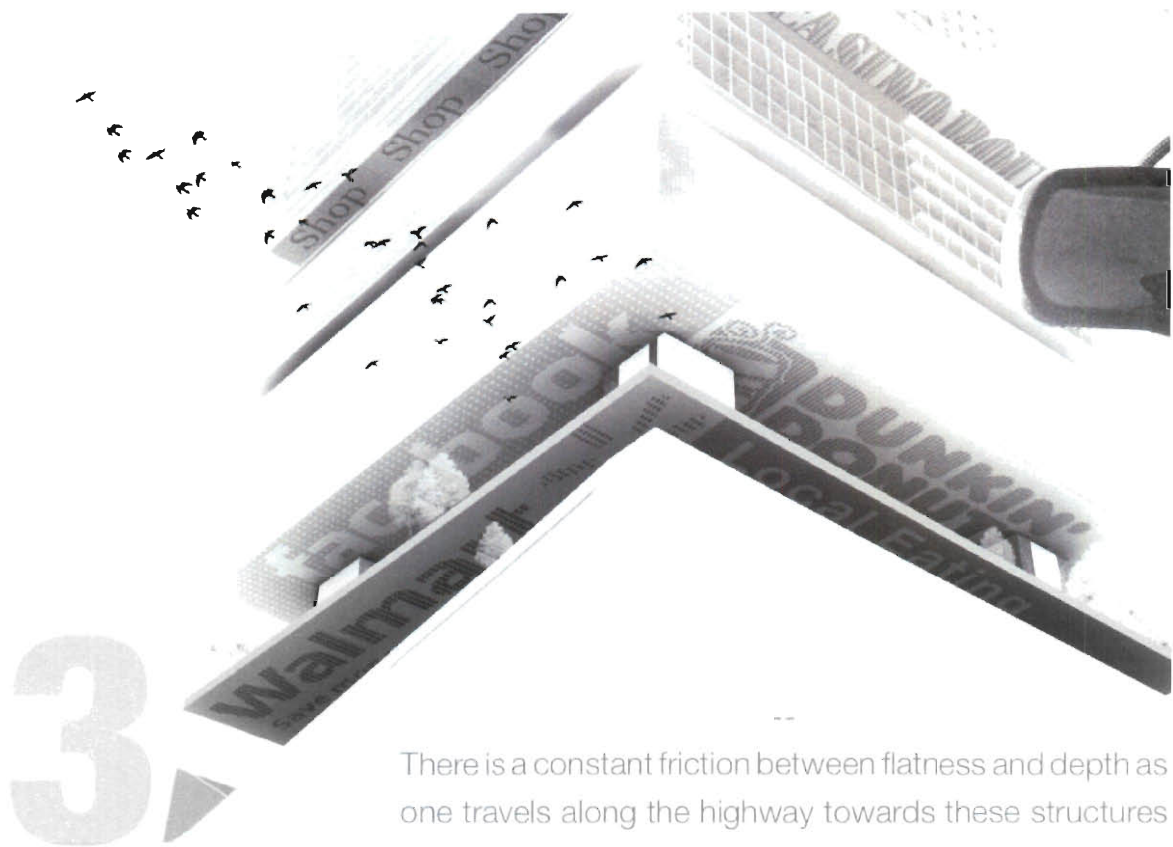
Second [2] scale of perception is the approach of one of the structures from afar, where the traveler will initially perceive the structure as a flat surface, a billboard.





As the driver approaches the structure the totality of the previous billboard begins to break down, giving a moment of silence to the passersby.

[3] THICKENED SURFACE

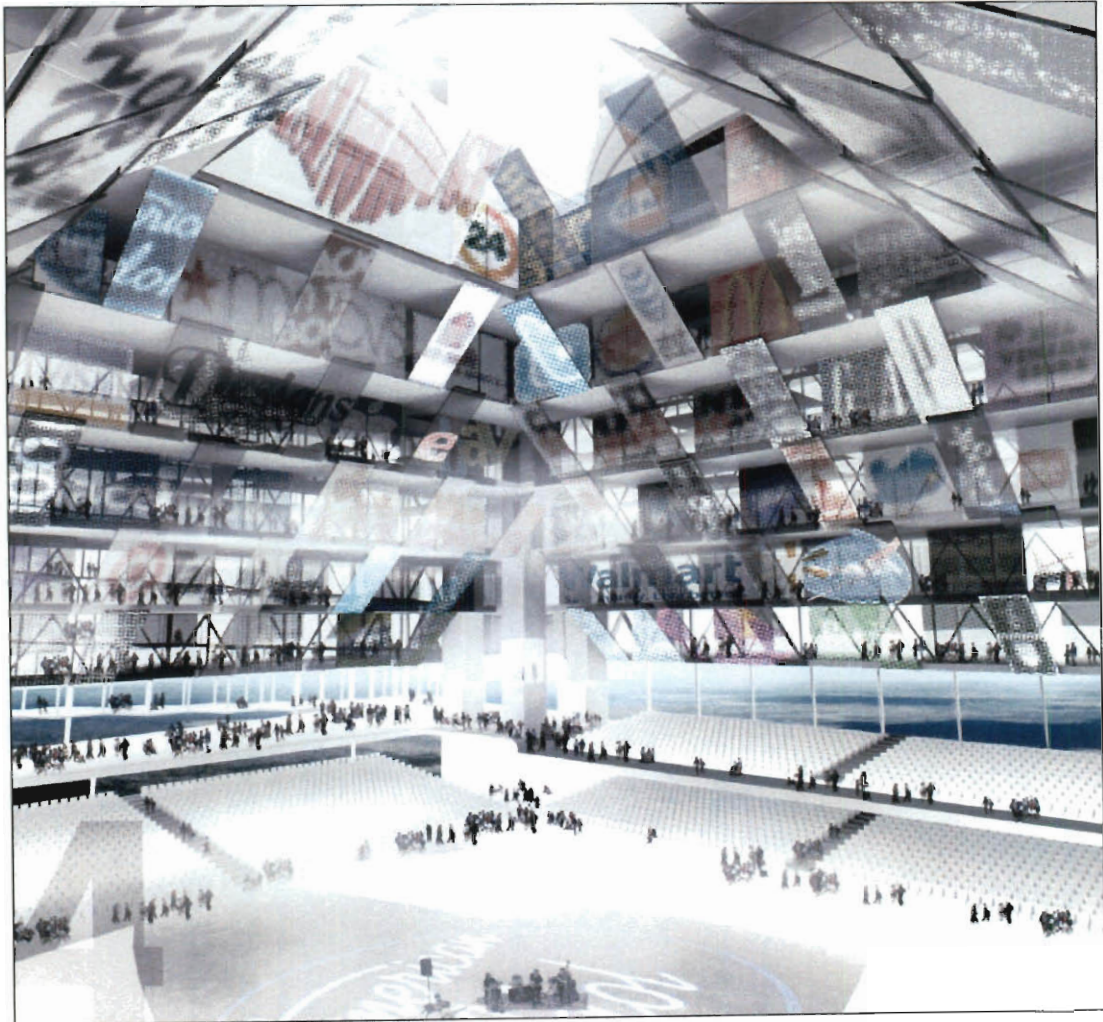


There is a constant friction between flatness and depth as one travels along the highway towards these structures

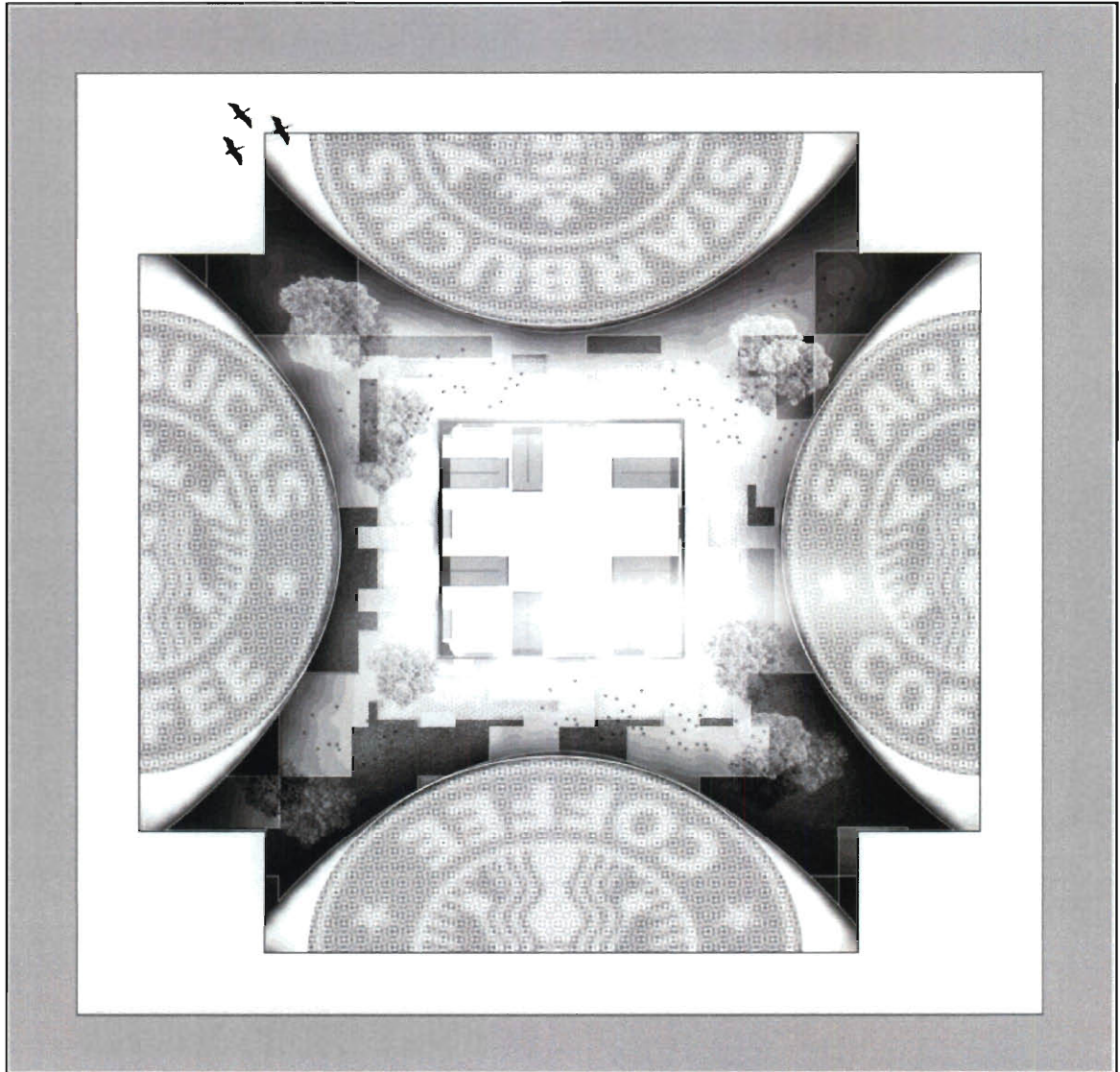
Third [3] is the moment at which the flat façade reveals itself as thickened surface. The totality of the structure begins to break down and individuality of the separate architectural typologies begin to be seen separate from each other. Each one of the programs inside the structure begins to activate either the exterior or the interior of the building in order to further serve as its own advertisement or just as a way of juxtaposing themselves within the entire organization of the building as well as the territory. This will further create a condition of banding both on the exterior as well as on the interior of the building, allowing a different perception from any given location from the highway as well as from within the interior of the structure.

[4] INTERIOR VOID

And fourth [4] scale is the experience inside one of the structures where the new social dimension is amplified through the interior void.

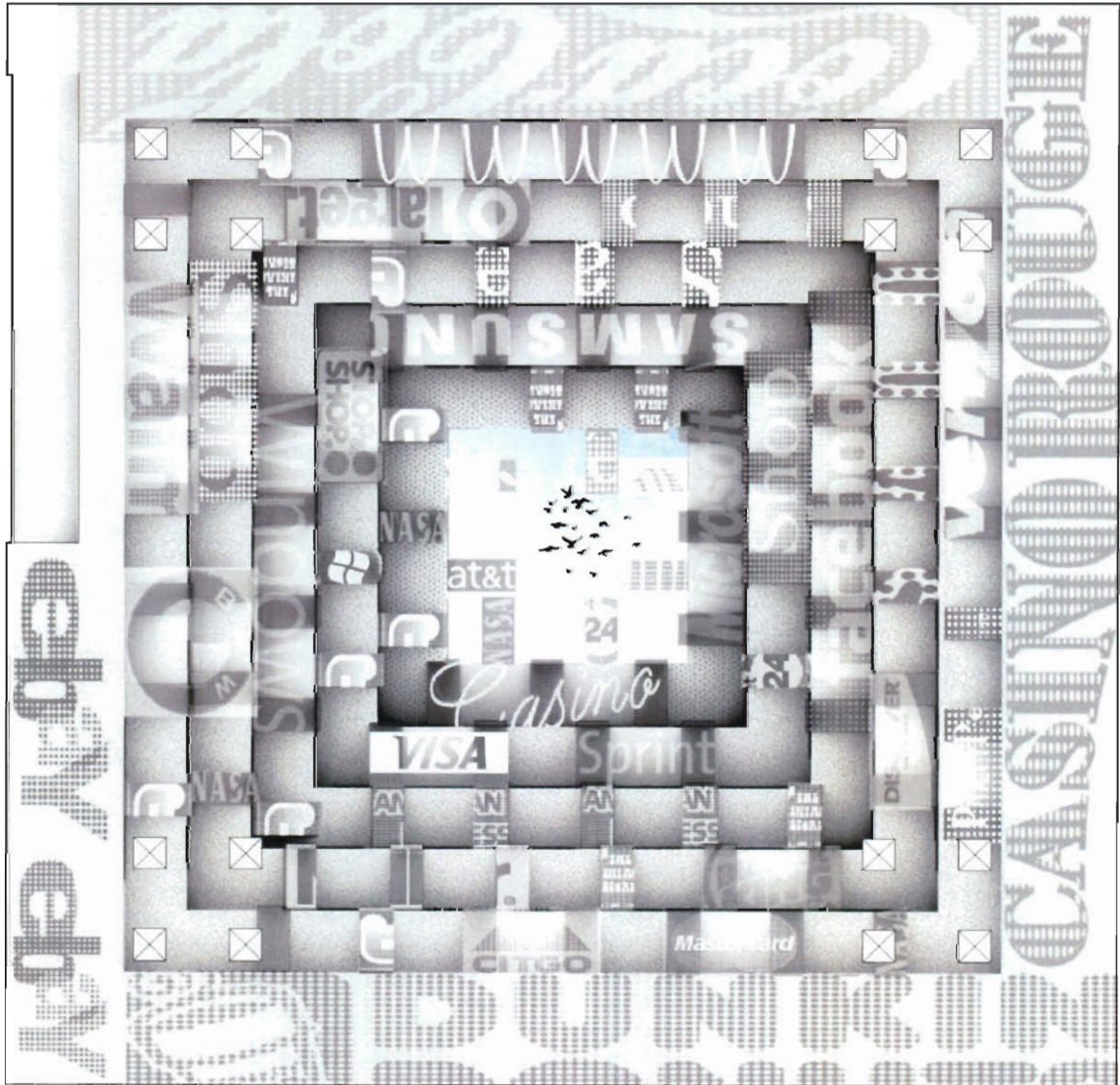


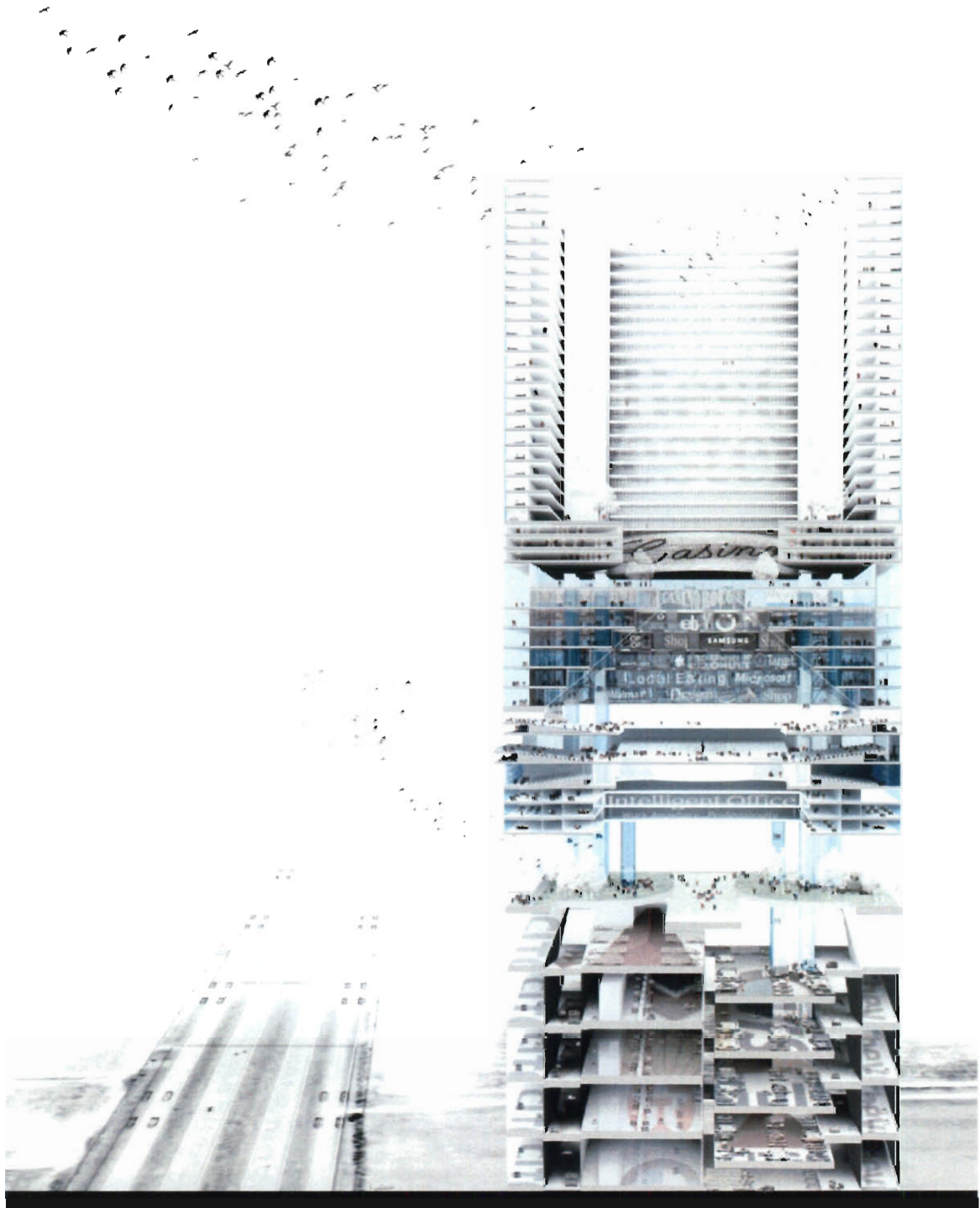
view looking down at the structures combinations of shapes.



NEW VERTICAL ORDER :: Translation of the previous horizontal

View up through the void, translating the previous horizontal homogeneity into new vertical order





The translation of the stretching of the program in the vertical dimension can be seen best within the gradient of the floors, the bottom levels being stretched the furthest apart for the vehicle and the most public areas of the structure, while further getting denser towards the top, the most privatized areas of the structure.



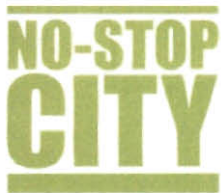
BIBLIOGRAPHY / Notes :: Sources, Interests + Inspirations



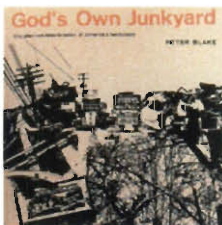
Appleyard, Donald, Kevin Lynch, and John R. Myer.
 “The View from the Road”. Cambridge: MIT Press, 1966.



Auge, Marc.
 “Non-Places; an Introduction to Supermodernity”, Verso, London, 1995.
 “...spaces that are both everywhere and nowhere.”

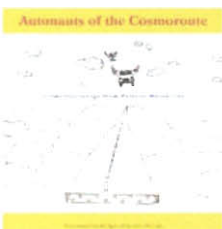


Branzi, Andrea.
 “No-stop city : Archizoom associati / Andrea Branzi.” Orléans : HYX, c2006.

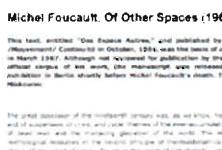


Blake, Peter.
 “God's Own Junkyard” Holt, Rinehart and Winston: New York. (1964, 1979)

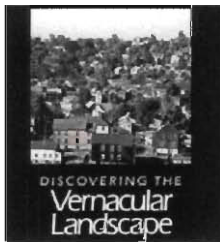
“Small towns across America have lost their distinctiveness as their characteristic have been buried under today's visual clutter, leaving a person feeling with no sense of having arrived anywhere, as everyplace today looks like no place in particular.”
 pg.131



Cortázar, Julio.
 “Autonauts of the cosmoroute : a timeless voyage from Paris to Marseilles”. Brooklyn, NY : Archipelago Books ; [Minneapolis, Minn.] : Distributed by Consortium Book Sales and Distribution, c2007.



Foucault, Michael.
 “Of Other Spaces, Heterotopias”. 1967



Jackson, John

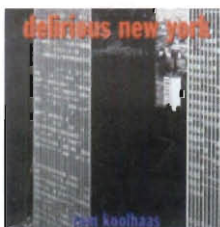
"Discovering the Vernacular Landscape" Yale University Press. September 1986.

As John Jackson notes in this book, the experience of the highway becomes an event, a set routine, determined not by the natural seasons but by the work and vacation schedules of the users of the national arteries. Jackson also introduces us to the term -- agoraphilia -- as the love of horizontal spaces



Koolhaas, Rem, Bruce Mau and the Office for Metropolitan Architecture.

"Small, Medium, Large, Extra-Large.", "The Generic City". New York: Monacelli Press, Inc. 1995.



Koolhaas, Rem.

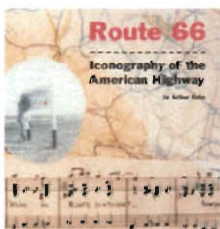
"Delirious New York: A Retroactive Manifesto for Manhattan". New York: Oxford University Press. 1978.



Koolhaas, Rem.

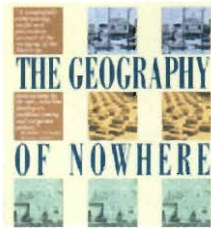
"Junk-Space"

- junkspace promotes disorientation
- "If architecture separates buildings, air-conditioning unites them...."
- "...Traffic is Junkspace, from airspace to the subway; the entire highway system is Junkspace, a vast potential utopia clogged by its users..."



Krim, Arthur.

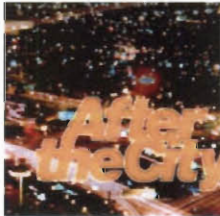
"Route 66: Iconography of the American Highway". Santa Fe, New Mexico, and Staunton, Virginia; Center for American Places. 2005.



Kunstler, James

"The Geography of Nowhere: The Rise and Decline of America's Man-Made Landscape". New York : Simon & Schuster, c1993.

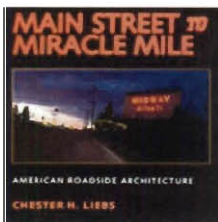
Kunstler argued that the environment of the highway acts like a television, the landscape surrounding it littered with messages that the traveler forgets while driving 75 miles an hour.



Lerup, Lars.

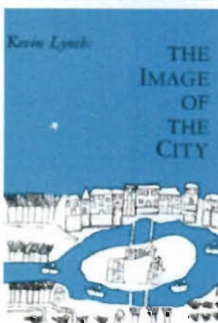
"After the city" Cambridge : MIT Press, 2000.

"The demise of the city has erased the borders between the city, suburb, and hitherland to form this huge barrier that is sometimes a metropolis and always a vast terrapolis, a world urbanism."



Liebs, H. Chester.

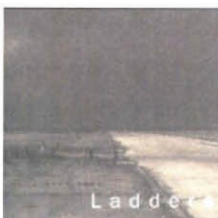
"Main Street to miracle mile". Boston, Little, Brown and Company. 1985



Lynch, Kevin.

"The image of the city." Cambridge [Mass.] Technology Press. 1960.

In 1960s, Kevin Lynch developed a term 'Imageability'-rating based on the amounts of icons and other signage. This system then could easily be applied to any given city. He argued that the bigger the 'Imageability'-rating was, the better was ones ability to navigate the city, regardless if one was a life long resident or a first time tourist.



Pope, Albert.

"Ladders". Houston, Tex. : Rice School of Architecture ; New York : Princeton Architectural Press, 1996

Pope, Albert.

"We are all Bridge- and Tunnel-People".

"The persistence of the present concentric obsession makes us all bridge-and-tunnel people, second class citizens in our own civilization, disenfranchised by the dumb coincidence of our collective exile from the center."

"The megalopolis is therefore defined as...taking its cue from the predominantly horizontal organization of the interurban freeway rather than the tall buildings or canyon streets of the metropolis."



Rowe, Colin ; Slutzky, Robert

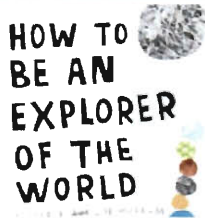
"Transparency: Literal and Phenomenal" Perspecta, Vol. 8. (1963), pp. 45-54.

Based on writings by Colin Rowe and specifically in his 'Phenomenal Transparency', he argues that in modernism transparency does not have to be about icons. (Transparency being the broader spatial organizing strategy, or the simultaneous perception of spatial order) Transparency in itself can become phenomenal rather than only visual based on the formal relationships of the project.



Shore, Stephen.

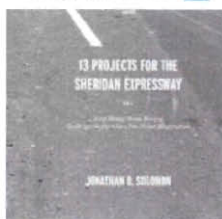
"Uncommon places : the complete works". Aperture Foundation. 2004



Smith, Keri.

"How to be an explorer of the world", Penguin Group. 2008.

"at any given moment, no matter where you are, there are hundreds of things around you that are interesting and worth documenting."



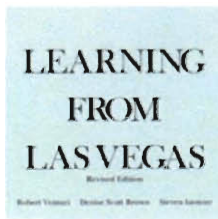
Solomon D. Jonathan.

"13 Projects for the Sheridan Expressway". Pamphlet Architecture 26. 2004. Princeton Architectural Press.



United States Global Change Research Program

<http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/climate-change-impacts-by-sector/transportation>

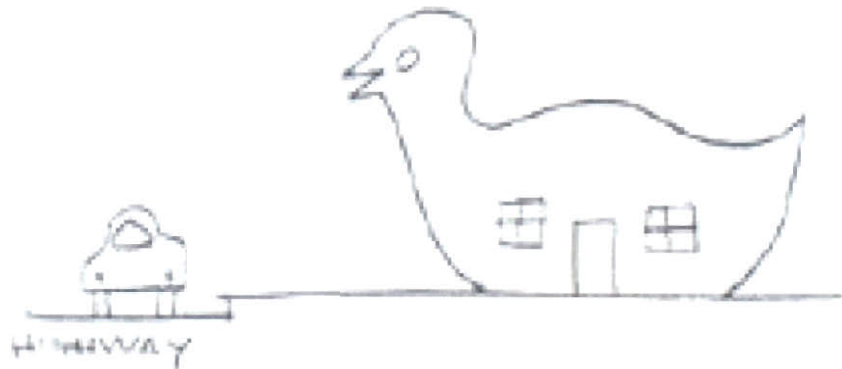


Venturi, Robert, Denise Scott Brown, Steven Izenour.

"Learning from Las Vegas: the Forgotten Symbolism of Architectural Form", The MIT Press, 1977.

"Symbol dominates space. Architecture is not enough. Because the spatial relationships are made by symbols more than by forms, architecture in this landscape becomes symbol in space rather than form in space." pp. 13

Venturi, Scott, and Izenour came in and opened the passage to the everyday landscapes of America through their extensive study of the urban sprawl and its consequences within the realm of Las Vegas in the late 1960s. Their work was significant within the field of architecture as it called the attention to the commercial strip and the overlooked typologies of roadside architecture, in particular the role of the signage along the major travel routes. They concentrated heavily on the way signage had begun to reorganize the manmade landscape surrounding the infrastructure, and they used Las Vegas as the testing grounds for their graphical analysis.



"the decorated duck"

Texas Freeway History

[http://www.texasfreeway.com/statewide/Statewide/historic/photos/images/i10/i10 opening beaumont orange oct 1961.jpg](http://www.texasfreeway.com/statewide/Statewide/historic/photos/images/i10/i10%20opening%20beaumont%20orange%20oct%201961.jpg)

Historical photographs and information of I.H.10 since its opening.

APPENDIX :: Precedents :: Re-Organizing Urban Layout



Ebenezer Howard :: Garden City :: 1902

"Perfect blend of city and nature" which attempted to address the question :: Where will the people go?

1. Town
2. Country
3. Town-Country



Le Corbusier :: Plan Voisin :: 1925

Envisioned the destruction of virtually the entire north bank of the Seine in order to incorporate a mini version of the Ville Contemporaine in Paris.

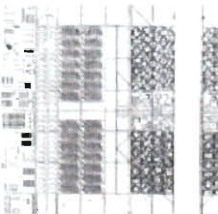
<http://www.volker-goebel.biz/LaDefenseLeCorbusier.html> ::
Voisin Plan pour Paris



Le Corbusier :: Ville Contemporaine :: 1922

- Ultimate glorification of the automobile
- "Inhumane"
- Housing for 3 million people

http://www.open2.net/modernity/4_1.htm



Le Corbusier :: the Radiant City :: 1935

Pre-fabricated apartment houses were at the center of urban life unlike in Ville Contemporaine where they were reserved only for the elite



Frank Lloyd Wright :: Broadacres City :: 1932

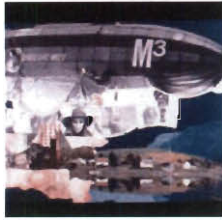
Suburban development concept that attempted to solve problems of sprawl by controlling the population of the city through better-organized urban layout



Le Corbusier :: Algiers :: 1931-1942

The Highway City

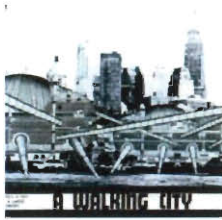
APPENDIX :: Precedents :: Re-Examining Functions Of City



Archigram :: Instant City :: 1960s

Mobile technological event that drifts into underdeveloped towns via air balloons with provisional structures (performance spaces)

Overstimulation to produce mass culture



Archigram :: Walking City :: 1960s

- intelligent buildings
- citizens seen as nomads not much different from today's car society

www.woostercollective.com/2004/03/give_em_props_archigram_groups.html&h=293&w=420&sz=22&tbnid=LppZWHcODM4NAM:&tbnh=87&tbnw=125&prev=/images%3Fq%3Darchigram%2Binstant%2Bcity&hl=en&usq=__yLIMVf8_XRDQ8bcZQGRP1M12x9Y=&ei=3pNkS9-cEdKWtgfakf2gBg&sa=X&oi=image_result&resnum=2&ct=image&ved=0CAkQ9QEwAQ



Archigram :: Plug-In City :: 1960s

Mega-structure
Massive framework with pods being inserted into it



Archigram :: Non-Stop City :: 1967

City without boundaries, artificially lit and air-conditioned

Highly artificial environment

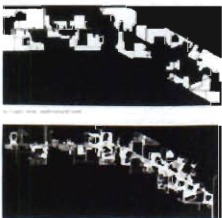


Superstudio :: Continuous Monument :: 1967

Commenting on the way globalisation was swamping the world by proposing one anonymous megastructure where all cultures are stripped away.

<http://artabase.net/exhibition/1441-in-situ>

<http://designmuseum.org/design/superstudio>



Venturi :: Learning from Las Vegas :: 1972

- Symbol dominates space
- Architecture is not enough :: symbol vs. form
- Space is enclosed but limitless

APPENDIX :: I-10 Precedents :: Places And Spaces



1. edge monument

Jean Nouvel :: Red Kilometer :: Italy

The simple move of using the color red as a graphic along side the interstate has completely changes the experience along this specific strip of infrastructure.

<http://www.jeannouvel.com/>



2. monument along the edge

Can the motion and experience of an interstate become more defined through the amplification of architecture at a mega scale? What can this edge condition give us to further affect our perception while in motion?



3. gateway

OMA :: Kunsthal, Contemporary Art Center :: Rotterdam, Amsterdam. 1992.

This Art Center located next to a very busy interstate functions as the Gateway to Rotterdam's cultural amenities

http://www.oma.eu/index.php?option=com_projects&view=portal&Itemid=10&id=96

APPENDIX :: I-10 Precedents :: Places And Spaces



4. gateway to a city

Houston, TX :: Interstate I-10

As the Main Streets used to be the measure of the city well-being, can the interstate become the gateway to a city such as Houston, reflecting prosperity of the area while also functioning at the level of the person in a vehicle as well as at the level of a person visiting the structure?



5. amenity

SWA Group :: Buffalo Bayou Park :: Houston, TX :: opened in 2006

An urban park that gives unique experience for both visitor of the park as well as the driver on the interstate above. It also gives the visitor a unique view and connection to downtown, the bayou, as well as to the roads that are such a big part of houstons landscape

APPENDIX :: I-10 Existing Conditions - Places And Spaces



SPACE IS...

“the unbounded three dimensional expanse in which all matter exists”. ---- space to move through

- Place is **“an area, position, or portion of space that somebody or something can be in.”**

-a place to stop (and remember)



1. Layered

While traveling in the space of the highway, we encounter layers of space where multiple interstates intersect. These are the odd moments along the highway when we are given suggestions of the other spatial experiences beyond the space we are currently inhabiting. These layered spaces create a sense of curiosity.



2. Loud

Loudness can become over bearing and exhausting. As one can imagine with this visual density comes also physical density of the traffic. Here the space is taking over not only the edges of the interstate but also the space above it; it acts more aggressively in the way it attempts to communicate to us.

APPENDIX :: I-10 Existing Conditions - Places And Spaces

3. Symbols



"The symbol dominates space". Architecture has been hidden below it, out of sight. These moments of the interstate are most common at the outskirts of the bigger cities. Here the landscape is manmade through neon lights shining against the sky.

4. Industrial



The areas where industrial facilities dominate the roadside, the security of a place has dissolved as there is no place to stop. At these areas the only option is to go forward. There are no signs of nature, and no signs of the kindness of human interaction; everything is grey, machine like.

5. Silent



Silence is a virtue. These strips of the interstate which have very few or no signage surrounding it allow us to take a break and enjoy the calmness of the landscape. Yet these areas leave us with a sense of abandonment, there are no feeling of security as there are no signs of human interactions besides the few lonely vehicular travelers.

APPENDIX :: The History

The history of the American roadside vernacular begins with the invention and mass production of the automobile in the early part of 20th century. This new invention allowed people to move beyond the limits of the city. Travel was previously very limited with railroads and horse carriages. With this invention also came the need for places to visit beyond the city-scapes, which were designed for the slower pace of horses as well as bicyclists and not for the use of an automobile. By the early 1920s, Model-T flooded the market places for the common person; 23 million vehicles were registered by 1930. For the first time in history most people had the luxury and freedom to go and roam the landscapes beyond the city limits.

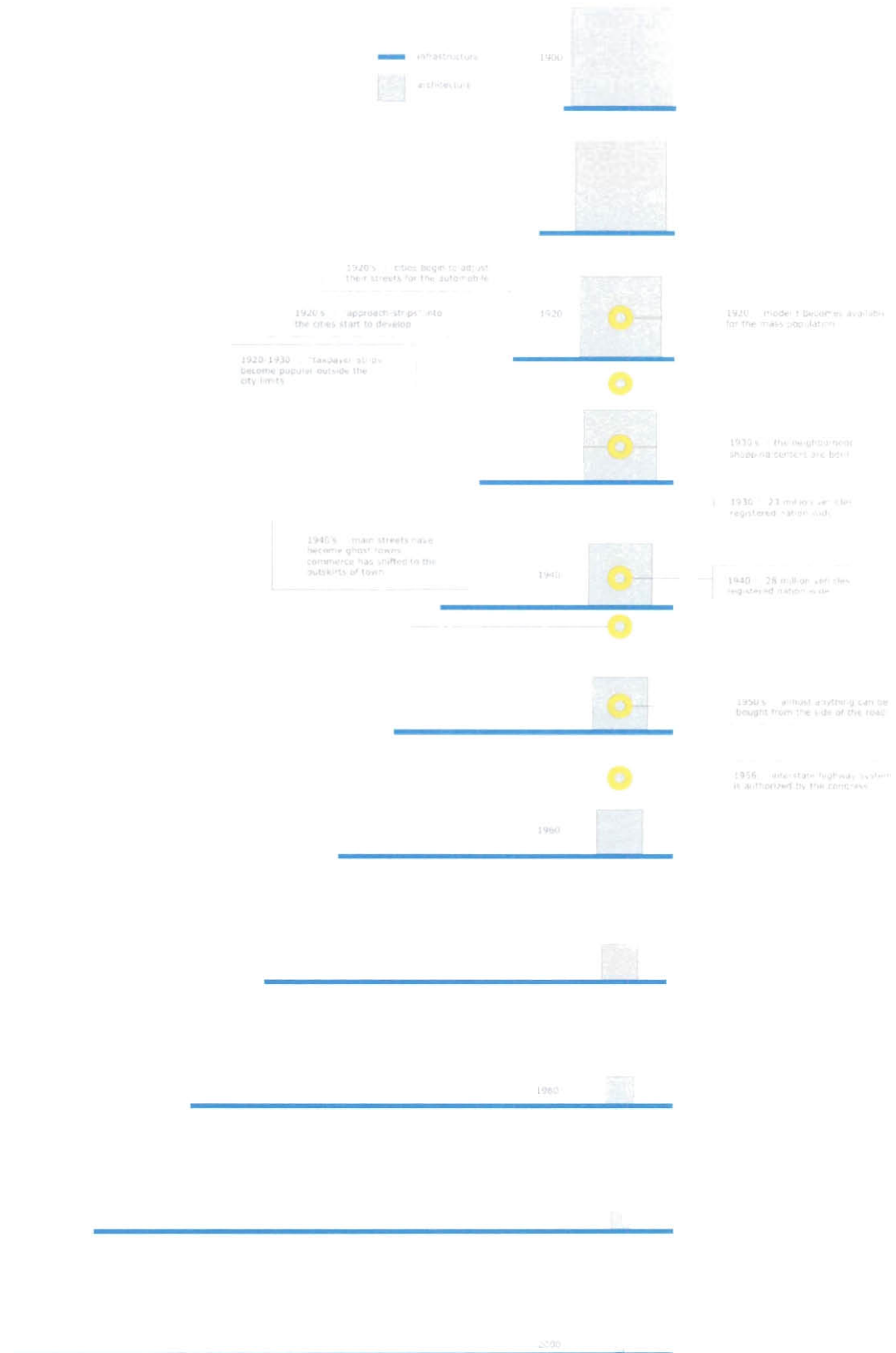
The countryside began to flourish as more and more people bought a vehicle. Roadside stores and markets started to appear along the roads in and out of cities. As new needs of the daily traveler were thought of, new types of establishments appeared, ranging from fruit stands to entertainment, and from hotels to shopping malls. By 1950s almost anything could had been bought from the side of the road. As the competition between the vendors grew greater over time, so did the amount of signs and billboards attempting to lure the carefree traveler to its property. This was the beginning of the graphic war.

The invention and availability of the automobile for the mass market created a shift in organizations as well as placement of the commercial centers within cities nationwide. The main street used to be the magnets for trade, filled with civic, public as well as commercial establishments. These were the places where the well being of the city was measured. As the car culture took over, the cities attempted to alter their streets to fit the new comer, only causing congestion and clutter on their main

streets. Main Streets nation wide stood abandoned, as the commercial strips moved on to the outskirts of the city to relieve the congestions from the inner city. These new commercial establishments began bordering the roads with main traffic in and out from the city.

These “taxpayer-strips” from 1930s began by the idea of occupying a lot with a low cost store until the city had expanded up to it and the lot could be sold while something bigger and better would be built on top of it. These new commercial strips became a hit among the daily travelers. The developers begun to adjust their set back rules to allow for more parking for the front of their stores. They further expanded by taking over vacant lots for parking, and eventually the required set back rules pushed the buildings to the far end of their properties with the massive parking lots in the front as the symbol for convenience.

APPENDIX :: timeline :: architecture - infrastructure - automobile



APPENDIX :: Graphic Signs Along I.H.10

